#6 Supp Response 12/14/4 RNB

FAX TO: (703) 305-7687
ATTN: COMMISSIONER FOR PATENTS

FAX FROM: (305) 531-9177
ANGELA MASSON

RE: Application/Control Number:
09/699,963
Art Unit 3663

- twenty-six pages including cover sheet -

Application/Control Number: 09/699,963
Art Unit 3663

IT IS RECOMMENDED BY THE AUTHOR THAT THE ENCLOSED MATERIALS BE TREATED AS

SECURITY SENSITIVE

re: Application/Control Number 09/699,963
Art Unit 3663

Electronic Kit Bag

A FLIGHT SYSTEM

by Angela Masson

RECEIVED
CENTRAL FAX CENTER
DEC 0 8 2004

November 15, 2004

Application/Control Number: 09/699,963
Art Unit 3663

Applicant: Angela Masson
Title: Computerized , electronic pilot "kit bag"

AMENDMENT A

Commissioner for Patents
POBox 1450
Alexandria, VA 223213-1450

Dear Mr. Commissioner for Patents;

In response to the Office Action Summary mailed June 18, 2004 by Examiner Arthur Donnelly, and subsequent conversations with Supervisory Patent Examiner Thomas G. Black on November 10, 2004, please amend the above application as follows:

Claims: Cancel all claims of record (claims 1-19), and add the following (claims 20 - 22) as follows:

[see attached pages 1-12]

Remarks:
Please note that the inventor is a novice, working without the benefit of legal assistance, and therefore, please keep in mind these corrections are meant to adequately answer any questions The Examiner may have, and are submitted with the full intention of correcting or adjusting the content as The Examiner may require for the purposes of patenting this invention.
By the above amendment the Applicant has amended the claims to conform with 35 U.S.C. 112, second paragraph.
- The structure of the device has been clearly and positively specified. The structure is organized and correlated in such a manner as to present a complete operative device.
- The claims are in one sentence forms only, having noted the format of the claims in the patents cited by the Examiner.
- Guidance is hereby provided so that a skilled artisan can make and used the claimed invention.
- The claims have been reorganized to precisely define the scope of the invention.
Further noting, in answer to the Examiner's Detailed Action, the invention in question is a system, and therefore comprises all the components he has listed, including device program, hardware, software, means and method.
The method of how to use a computing device has not been elaborated, as it is assumed one trained in the art can do this, and the inventor believes it would be exceedingly tedious and of limited value. In the same vein, an in-depth discussion of mechanical interconnectivity, how to load and use software, and hardware devices has been avoided, since it is not the particular connections or software which define this invention, but that many parts and types of software can be connected for the same result in the spirit of the

invention. For instance, how a GPS might be connected to the computing device is not discussed at length because an engineer, skilled in the art, has more than one option available for connecting a GPS to a computing device (although several options are listed in claim [20]). It is not the connection itself, however, that is especially pertinent to this invention, but rather the fact that disparate data is acquired and used by the system. Likewise, a description of the use of the system is not excessively elaborate, as one skilled in the art of aviation knows the art is replete with computer-type systems, and thus the typical operator will not be unfamiliar with the functional logic.
Nonetheless, the inventor is more than willing to explain any part of the invention in which an explanation is deemed necessary, or has been overlooked.
Use of the wording "state-of-the-art" is not an attempt to define the invention, but to indicate the temporal condition of technological advancement, which is a continuum. The embodiment of the EKB as executed with today's technology is not the one, definitive, embodiment of the system. It is anticipated the EKB will continually be refined as technological advancements are made, these advancements being an integral part of the conceptual premise of the EKB.
Also, although the claims are in one sentence, if considered unwieldy, the inventor is more than willing to reconstruct them into separate claims if the Examiner so requires.
In sum, the Applicant is attempting to explain, in the clearest manner possible, that a portable, computerized system may be used by a pilot in lieu of a traditional pilot kit bag for the purposes of managing a flight, both on the ground and enroute, and that the same device, may be used, additionally, as a means to "remotely" control an aircraft.
Understanding that Patent Examiners are notoriously overworked and have things to worry about aside form helping the Applicant write suitable claims, nonetheless, in the event that the writing of the these claims is deficient insofar as the inventor's claim-writing expertise is concerned (not being a lawyer), the Applicant respectfully requests the Patent Examiner to write a suitable claim(s) for this application [ref MPEP 707.07(j)].
Please do not hesitate to contact me at any time,

Thank you,

Respectfully submitted,

Capt. Angela Masson, PhD

POBox 190540
Miami Beach, FL 33119

(305) 531-5622 home
(305) 807- 4070 cell
(305) 531-9177 fax

a.masson@att.net

w: Patent file #2 07DEC04

ATTACHMENTS:

"Illustration of one embodiment of the old-style pilot kit bag"
"Illustration of one embodiment of the EKB (Electronic Kit Bag)"
"Illustrating of pilot using old-style paper to follow flight plan"
"Illustration of pilot using EKB to dynamically follow flight plan"
"Illustration of one embodiment of the old-style pilot search function"
"Illustration of one embodiment of the EKB search function"
"Illustration of pilot using EKB to study flight plan"
"Illustration of pilot flying 777"
"Illustration of pilot using EKB to remotely fly 777"
"Illustration of pilot using EKB and peripherals to remotely fly 777"

Biography of The Applicant: Angela Masson

ref: Application/Control Number: 09/699,963
Art Unit 3663

THE ELECTRONIC KIT BAG (EKB)

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

[20]. A portable, computerized aircraft flight system which collects, organizes, and manages disparate data and functions, resulting in output accessible by a pilot/operator, comprising:

A. a portable computer, said computer including:

1. hardware with

a. a processor,

b. memory,

c. data input means, for permitting an operator to input data,

1) which may include a manual keyboard, touchpad, touch-screen, soft-key, cursor control device, voice recognition, microphone equipment, telephone and DSL ports, disks (soft, hard, floppy, CDs, DVDs and their ilk) and disk drives, USB, hotwire, firewire, infrared, ACARS, VHR, HF, ARINC, Ethernet LAN, GPS and satellite transceiver ports, scanning, faxing, and additional slots for superseding and upgraded input methodologies, including wireless data acquisition and control systems, wherein these input sources are examples, but not limiting;

2) and includes cables, pins, cords, wireless cards and connection devices,

d. data sources, from which data is acquired, where these sources may, by their nature, be included in those devices noted in data input means [c.] above, and include the physical parts of software programs and data holding devices;

e. display device(s) for displaying data to an operator,

1) including screen(s),

a) and other projection methods, such as holographic, spectrographic, x-ray and gamma ray embodiments, and peripherals as described in [20.A.3.] below,

2) wherein such display devices have a means for changing illumination based on flight conditions, manual and automatic, such as brightness controls, back-lighting, photo-sensitivity devices, and light polarization mechanisms, such as covers glasses, and related peripherals,

3) and such that these display devices incorporate hardware consistent for the output, so that such output is clear, legible, audible, and quality consistent for usage on the ground and in the air;

f. data recording and storage means, for data including raw data, video and audio, including internal, external and portable drives, and drives and servers at remote sites,

g. data output means for permitting an operator to output data, including ports and peripherals, printers, static and interactive devices, speakers, and including those devices noted in[c.] (above),

h. communications device(s) hardware which may include, but is not limited to, receivers, transmitters, and transceivers for ADF, marker beacon, LF, VLF, HF, VHF, ACARS, SATCOM, ARINC, IEEE 802.11(a,b) and their equivalent transceivers, infrared, including other photonic based mechanisms, headphones, speakers, controls and other hardwire and wireless radio-related communication devices;

i. hardware which includes timing mechanisms,

j. other hardware including DSL, video, television, and associated hands on and remote control devices and components which can be used to accomplish the purposes of the system herein described,

k. construction characteristics consistent with the intended use, understanding the precise architecture will depend on specific aircraft and user specifications,

1) such as the use of magnesium or composite, so that if the computer and associated elements, for instance, are dropped or jostled in turbulence, their performance will not be deleteriously affected,

2) and of sufficient strength and durability to withstand the potential rigors of flight, including constant and repetitive pressure changes and the potential for exposure to rapid decompression,

3) and designed so form follows function insofar as the shape, size and weight of the main unit are usable in a cockpit environment, as in tablet form, pocket-size, full-screen, foldable, stowable, wearable, round, symmetrical, and asymmetrical,

4) so that associated buttons, control devices and peripherals are of a size and shape, that is large and clear enough, to be manageable in a cockpit environment under even adverse flight conditions,

5) with stylizations included suitable to the form, so that, for example, on a tablet-type embodiment of the EKB, a storage area is retained for the stylus, that stylus being attached to a string so it won't be dropped between aircraft controls,

6) and tested to preclude radio magnetic and electromagnetic interference issues,

7) and anticipating future constructional equivalents in the realm of fluid, chemical and biological embodiments;

2. software, which may be retained on internal computer storage or accessed from external sources, including,

a. an operating system,

1) which allows data input, integration and manipulation of data, and data output, by means of a "shell" program(s),

2) "driver" program(s) which operate the hardware described in [20.A.1] above.

b. programs including,

1) system function programs, which manage the operations of the entire system environment, such as system responsiveness applications, active regions programs, management of multiple open applications and documents;

2) translational program(s) and programs which implement API (application program interface) functions which allow the input and output of disparate processes which use different program languages (such as C, C Sharp, JAVA, HTML, XML, asp.net and so forth) to be functionally operational and provide results in executable

formats allowing "cross-talk" between disparate processes and programs by means which include cross-referencing languages and matching and stacking protocols;

a) interactive programs which enable applications to be selected and rendered in dynamic modes such as de-cluttering, and changing-element calculations, as opposed to pre-composed information,

b) programs which allow consistency across and between various hosted applications, and assure compatibility with other flight-deck systems;

3) flight organizing program(s) which collect data and collate it under specific headings, such as aircraft logs and flight manuals, using browser and "search-engine" functions for ease of retrieval, for instance, inputting "Engine Out," might generate a list containing the following items hyperlinked to their sources: check-lists, flying methods, alternate airports, passenger considerations, fuel management algorithms; allowing the pilot to obtain links to all relevant and accessible information concerning the condition in one list,

4) flight management program(s) which include maps, charts, and situational awareness programs with means of retrieval and updating by means of said data input programs and electronic update communication programs,

5) flight operating program(s), including, but not limited to weight-and-balance programs, wind analysis programs, airspeed, runway length, maintenance programs, and other algorithmic programs, current data for which may be accessed by means of aforementioned input capabilities,

6) flight navigation program(s), static and interactive, such as flight and position mapping, following, and navaid and airway plotting, such as Jeppesen and NOS chart programs,

7) flight control program(s), which by means of electronic data, can control aircraft systems and flight controls,

8) flight data program(s) which include electronically stored data such as manuals, checklists, rules and regulations, airport procedures, airport charts, log-books, and reports, online publications, such as, CDLs, MELs, AIM, AIP, airline specificiations and HAZMET tables,

9) flight engine, engine performance, and other aircraft system, such as hydraulic, pressurization, electrical and other instrument, program(s), which can provide monitoring and control, both active and interactive, such as EEC programs;

10) flight assistance and monitoring program(s) which include applications for use by cabin crew, maintenance crew, ground services and airline operations, including flight service, SOC and dispatch;

11) data structuring program(s) which format and manipulate data according to use, such as word, graph, grouping, calculating, web-building and programming,

a) with relating sub-program(s) such as word and numerical formatting,

12) media program(s), including those which handle files ending in wma, wmu, asf, dvr-ms, mp3, avi/wav, meg, medi, aiff, au, jpeg, gif, pct, mac, msp, psp, pic, psd, pgm, png, raw, wpm, xpm, and the like,

13) communication program(s) which allow internet and intranet access, functionality for the operation of the infrared, radio and

satellite communication transceivers as noted in applicable hardware, [20.A.1.],above, and other communications capabilities for the purposes of acquiring and outputting data, as well as linguistic processing and audio processing programs for use by audio hardware such as sound control levels and audio output;

14) accessing and terminal services client program(s), which allow a remote user(s) to "control" another computer by means of said communication programs noted in 10), above,

15) linking program(s), which link and interface the programs noted herein, in one embodiment, by means of using plug-in framework and translational/API programs, which may vary in markup sequencing and language, to standardize executable language, and then by using organizing programs, such as those noted above, to organize disparate data, which may then be sorted according to form and function, and accessed by means of flight management and operating programs, as noted above, and displayed or accessed by visual, audio or other output means of said hardware and software as described above;

16) interactive programs, which allow the data received and sent to be dynamically updated as the flight progresses by means of the communication hardware and software devices previously noted, such as moving map displays, and the use of one performance calculation to be plugged into another application as it becomes available;

17) networking programs, which allow multiple users to interact and share information, such as intranet, internet, and private networks;

18) surveillance, weather, terrain, and radar programs;

19) security program(s), which protect the integrity of

a) the system, including but not limited to, permissions, error-messaging, anti-viral, anti-spam, firewall, system back-up, and

b) the users, such as, approved electronic signatures, photon encoding messaging, public/private key technology (PKI), and governmentally secure data programs for use in high-level threat situations,

20) training programs, including training programs for use of the EKB, itself, in normal, abnormal and emergency situations, as well as any desired aircraft or flight operations or systems trainings programs,

21) archival, history, and data retention programs, including, previous content, book-marking, tree expansion and page scrolling;

22) additional programs, as it is anticipated that, with advancements in technology, programs will become available which meet the criteria and scope of this invention, and by their nature should be included,

3. peripherals,

a. including printers, alternative display units such as, wearable displays including interactive headgear and heads-up displays, and ergonomically designed knee-top style hardware, writing pens, and other accoutrement devices associated with computer operations, and,

b. associated cables which may be needed for connectivity to the noted peripheral power sources, and to the aircraft, such as, for example serial to USB adapter and connection cables,

4. power source(s), such as,

a. DC integral, external and battery capabilities,
b. AC power capability,
c. back-up power, such as emergency DC batteries,
d. integrated, internal world-wide power adaptation capacity, so that, for instance 110 power and 220 power may both be translated into DC power for use by the device,
e. external plug-in type adapters such as auto/air and travel type adapters,
f. and, alternate energy sources such as solar, bionic, molecular and nuclear;

5. docking capability,
a. which allows the device to be optionally "plugged into" the aircraft for purposes of,
1) using aircraft power to recharge or replace the portable battery(ies), and
2) direct electronic data transfer via plug-in couplings from the ACARS, NAV system and other aircraft data resources
b. by means of canon plugs, cables, male/female slotting devices and associated hardware,

6. attachment capability,
a) wherein the device may be attached to the aircraft by means such as a moveable attachment arm, Velcro strips, tie downs, bolts, clips, cradles, quick-disconnect or other attaching devices, and,
b) wherein the device may be attached to the pilot by means such as straps, Velcro, sticky bean-bags, buttons, snaps, zippers or other attaching devices;

7. and, updating capability,
a. the EKB is an example of "open architecture," meant to be updated in both hardware and software,
a. and, in that the computerized aircraft flight system herein described augments the traditional "pilot kit bag," the contents of the EKB, like the contents of the traditional kit bag, are intended to be updated and kept current by whatsoever means are most advantageously accommodating per recent technological advances, whatever the state-of-the-art might be, including all components described in [20.A],above;

B. a system built thusly:
1. a portable computer and peripherals are collected, (see [20.A], above, for a partial listing of requisite and optional components);
2. basic operating software is loaded;
3. the computer and peripherals are connected,
a. and attendant software is loaded, as per each components individual specifications (see [20.A.3.a-b] above, for a partial list of requisite and optional peripherals),
4. software is loaded (see [20.A.2.], above, for a partial list of requisite and optional software)
5. the software and hardware are tested for de-bugging, functionality and safety, so that,

6. the above described components together create an aggregation of parts which together bring multiple information streams to one source, connecting them in an organized way for the purpose of aiding a pilot/operator in flight monitoring, management, and decision-making;

C. a system in which the above described components operate together in the following manner:

1. the computer is linked to peripherals and, if needed, aircraft systems, by plugging in optional cables and components,

2. the computer is opened, if necessary, and turned on,

3. data is inputted to the computer by those components, mechanisms and means described in [20.A.1.c.], where the operator will select which source(s) are necessary to perform any given function, so that, for instance, before embarking on a flight, a pilot will input maps and charts, for example, by an internet upload method, while enroute the pilot will input weather, for example, by an ACARS connection uplink method and, while maneuvering, the pilot will input data, for example, via an aircraft FMS link;

2. data which has been entered is manipulated as needed by the programs as discussed in [20.A.2], so that, for example, data can be collated and organized, the data will be manipulated by an API program, then grouped and sorted by the browser and search functions, and, selective data will be accessed by computational programs, these functions performing,

a. in some cases automatically, as for "background" and linking programs,

b. and on demand as called for by the pilot/operator or system, depending on the functions in use, so that;

3. data which has been successfully manipulated, and depending on which program(s) are being used, is outputted by the components and means discussed in [20.A.1.g.], and then;

4. data which has been successfully outputted will be displayed by the means noted in [20.A.1.e.] , above, or forwarded to another program or system by the means noted in [20.A.1.h.] and [20.A.2.b.], so that,

5. the process works, more specifically, for example, in one possible embodiment of program selection as described here, noting this description is exemplary only and not limiting to the manner, style or functional utility of the system:

a. after the computer is started, the pilot may elect to use the browser function, with linking capability to, for example:

1) a connection function, a search function, a tools function, a programs function, a control function (this list is intended to be exemplary, not all inclusive);

b. the pilot then, for example, selects an option from the browser, such as:

1) "search function," and opens the program, then,

c. when the pilot wants information, data is inputted into the search function by the pilot, such as,

1) "Engine Out," then,

a) a list is presented with hyperlinked options, including, for instance, "airspeeds," "alternate airports," "checklists," "landing weights," "reports," then,

b) the pilot selects an option, for instance, "alternate airports," and a list of alternate airports is displayed, then,

c) the pilot selects an alternate airport, then

d) data about that airport is displayed, including additional links to related topics and functions, such as, "calculate time to airport," "calculate fuel to airport", so that the pilot may continue with the search tree, select another option, or return to the main menu, depending on the program and search function in use, and, to continue with the example;

d. when a pilot wants to make a calculation, data is inputted into the search function by the pilot, such as,

1) "Engine Out," then,

a) a list is presented with hyperlinked options, including, for instance, "airspeeds," "alternate airports," "checklists," "landing weights," "reports,"

b) the pilot selects an option, for instance, "airspeeds," and a list is presented, for instance, "landing," "go-around," then,

c) the pilot makes a selection, such as "landing," then,

d) a list is presented of airspeed/ landing functions, such as, for example, "reference speeds,"

e) the pilot selects the desired function and inputs the prompted data, such as wet/dry, and wind component, then,

f) the system calculates and outputs the needed airspeed, so that the pilot may continue the search tree, select another option, or return to the main menu, depending on the program and search function in use, and to continue with the example;

f. when a pilot wants to make a decision, data is inputted into the search function by the pilot, such as,

1) "Engine Out," then,

a) a list is presented with hyperlinked options, including, for instance ,"airspeeds," "alternate airports," " checklists," "landing weights," "reports,"

b) the pilot selects an option, for instance, "landing weights," and a list is presented, for example, "current weight," and "calculated weight,"

c) the pilot makes a selection, such as "current weight,"

d) data is outputted, such as "landing weight is 500,000 pounds, too heavy, dump fuel," so that,

e) the pilot has been presented a decision-making option, and, to continue with the example,

g. when a pilot wants to make a report, data is inputted into the search function by the pilot, such as,

1) "Engine Out," then,

a) a list is presented with hyperlinked options, including, for instance, "airspeeds," "alternate airports," "checklists," landing weights," "reports,"

b) the pilot selects an option, for instance, "reports,"

c) a list is presented containing, for instance, "ATC," "Company," "Other Aircraft,"

d) the pilot makes a selection such as, "Company,"

e) the pilot is presented with a screen where a message may be addressed, composed and sent,

1) such as an email format,

2) where the sending mechanism may be hardwired or wireless, depending on the connectivity selected in this particular embodiment, which may be variable, depending on the choices of hardware and software as outline in [20.A.1.and 2], above;

h. when a pilot wants off-line training, data is inputted into the search function by the pilot, such as,

1) "Engine Out," then,

a) a list is presented with hyperlinked options, including, for instance, "airspeeds," "alternate airports," "checklists," "landing weights,"

b) the pilot selects an option, for instance, "checklists,"

c) a list is presented containing, for instance, " engine-out landing," "engine out go-around," "emergency landing," "evacuation,"

d) the pilot selects an option, that checklist is outputted for study and review by the pilot, noting,

c. and reiterating that the above discussion represents merely a sampling of optional functionalities of the EKB, noting the selections of accessed potentially accessed programs are myriad, and only partial subsets of some capabilities are here noted (for instance, a search-string can be by-passed by directly accessing a desired function), so recognizing, then,

5. data which the pilot/operator has successfully acquired by these means can be used for the purposes of flight management, and can additionally, be re-inputted, so, for instance, a value derived from a functions program can be manually or automatically re-inserted into another program, which will result in the logic loop beginning again at the input stage noted above;

D. a method of using the EKB which includes,

1. using it from a" stationary" site, such as on the ground or space-station,
2. using it from a moving site, including in vehicles, aircraft and spacecraft;

E. a method of managing disparate data and functions using the elements described above, including;

1. inputting data,
2. manipulating data,
3. outputting data,
4. displaying data,
5. updating data,
6. communicating data;

F. a method of managing electronic flight data by using upgradeable, portable, computer hardware and peripherals;

G. a method of managing flight data by using upgradeable hardwire and wireless means;

H. a method managing data by using software which may be upgraded and revised;

I. a method of managing flight data between disparate sources;

J. a method of managing flight data with disparate functions;

K. a method of managing flight data with disparate connectivity;

L. a method whereby a pilot/operator may use the EKB as an electronic version of the traditional kitbag, for acquiring, managing, manipulating and outputting disparate data;

M. a system which is constructed and utilized in a manner acknowledging the highest priority in flight management and operations is safety;

N. a system that is not hardware, software or component, dependent, but rather conceptually and mechanically evolving, anticipating future incremental improvements, within the scope of the herein described purposes of the Electronic Kit Bag, namely organizing, managing, manipulating, and outputting data so that it not only be accessed, but used as a portable interactive decision and support tool for flight operations, accordingly, it is intended that this invention not be limited to these specific illustrative embodiments, but is to be interpreted within the full spirit and scope of the appended claims and their equivalents.

[21]. The flight system of Claim [20] wherein said system is used to manipulate an aircraft, by an on-board or remote operator, comprising:

A. The flight system of Claim [20],

B. Additionally having,

1. the capability to interface with the mechanical operational systems of the aircraft, including the autopilot, by means of,

a. inputting aircraft commands into the computer by any of the input means as described in Claim I, and including those means described in [21.B.c.] below, into said computer.,

b. allowing the computer to use the translational/API strategies and programs as described in claim [20.A.2.b.2)], above, to re-format, adjust, stack and interface the commands into the executable language of the aircraft navigation and operating systems,

c. outputting commands into the aircraft's navigation and operating systems by using an interface between the computer and the aircraft, which may be accomplished by more than one means, including, but not limited to,

1) the means noted in claim [20] and including but not limited to,

1). a hardwire-type interfaces, such as canon-plugs and USB connections directly plugged directly into the operating functions of the aircraft including but not limited to the primary electronic flight control computers and navigation systems, the autopilot, and the FMS computers,

2). a short-wave wireless interface, such as infra-red, by means of computer to computer data-linking,

3) medium distance wireless, such as IEEE 211 (a,b),

4). long-range wireless connections, such as through a SATCOM, HF or ARINC transceivers inputting into aircraft flight operating systems and management computer(s),

5). any other data transfer systems which embraces the scope and spirit of this invention,

d. allowing the aircraft computers and operating systems to respond to the input commands as they would to other normal command inputs,

e. outputting the results of the aircraft navigation, flight and operational systems back to the EKB computer, through the same data transfer linkages as described in c) above, which may then be accessed and reviewed by the operator for additional inputs, so that,

f. for instance, the operator may input "turn left 20 degrees," "nose down 2 degrees," "set power at 1.2 EPR," and through the means of data transfer described here, the airplane will respond thusly, and send back the resulting aircraft indications by the same means for further interactive responses as necessary,

g. so that an on-board or remote controller may "fly" the aircraft through the EKB, so for example, using one possible embodiment of the EKB:

1). when a pilot wants to make a flight path correction,

a) a selection is made from the browser, for instance, "aircraft control," and,

b) a list is presented, for instance," turn," "vertical speed," "altitude," and

c) the pilot selects, for instance, "turn" and inputs, "turn left, 020 degrees," and

d) the aircraft receives the electronic output, and,

e) the aircraft responds and turns left to 020 degrees;

2). when another operator, such as a ground based operator, wants to use the computer for any of the above operations, the ground-based user accesses the computer by,

a) utilizing a software program which allows a remote user to access a computer system, see claim [20.A.2.b.11)], and,

b) continuing as noted above in [21.B.1.g.1).] for each command.

[22]. The EKB system of claim [20], above, wherein the operator can remotely fly an aircraft, such as an American Airlines Boeing 777, for example, by means and methods of:

A. turning on the EKB system,

B. identifying an aircraft whose engines and systems are turned on and normally configured, per the procedures as described in the aircraft operator's or manufacturer's manuals, such that;

1. the aircraft is identified, for purposes of security, by it's airline call-sign, aircraft number, and SELCAL/ACARS identity,

2. . the aircraft is identified, for purposes of communication, by it's airline call-sign, aircraft number, and SELCAL/ACARS identity,

3. the aircraft is identified, for purposes of control, it's airline call-sign, aircraft number, and SELCAL/ACARS identify,

4. for illustrative purposes only, these identifications might be, "American 123" (airline call-sign), 7BK (seven-Bravo-Kilo, aircraft number), and FG-HJ (Foxtrot-Gulf-Hotel-Juliet, SELCAL/ACARS identity),

C. composing a command message on the EKB, such as a flight plan,

1. where command messages are electronic data messages which can be processed by the aircraft's computers,

2. where typical formats are software compliant and are currently in use by both airlines and ATC,

D. sending this information, via datalink, to the aircraft's FMS(s),

1. in the same manner that flight-plans are currently uploaded,

2. via, for instance, VHF and SATCOM,

a) this information may be sent through the ACARS to the MFD, then through the MFD to the CDU,

1) as is currently done with ATIS, ATC clearance delivery, load-closeouts, and company communications,

b) alternately, this information may be sent directly to the MFD, then through the MFD to the CDU,

1) as is currently done with ATIS and, ATC communications

c) where the information is sent to the MFD,

1) because in this example the MFD communications functions are used to control data link features before they can be processed by the FMC,

E. ensuring the information is loaded into the FMC,

1, where it will be displayed in the CDU,

2. automatically, as flight plans are normally loaded,

3. or by using the LOAD FMC command, where the selection is made by the operator of EKB,

a. by means of a terminal services client,

1) which allows a remote user to "control" another computer from a distance,

2) which may be a wireless interface,

3) and are commonly in use with network servers,

F. then "activating" the uplinked and loaded command data,

1. automatically, through programming,

2. or by command, where the selection is made by the operator of the EKB, by the means described above,

3. which causes the transferred data to become the active route,

G. then "executing" the uplinked command,

1. automatically, through programming,

2. or by command, where the selection is made by the operator pf the EKB, by the means described above,

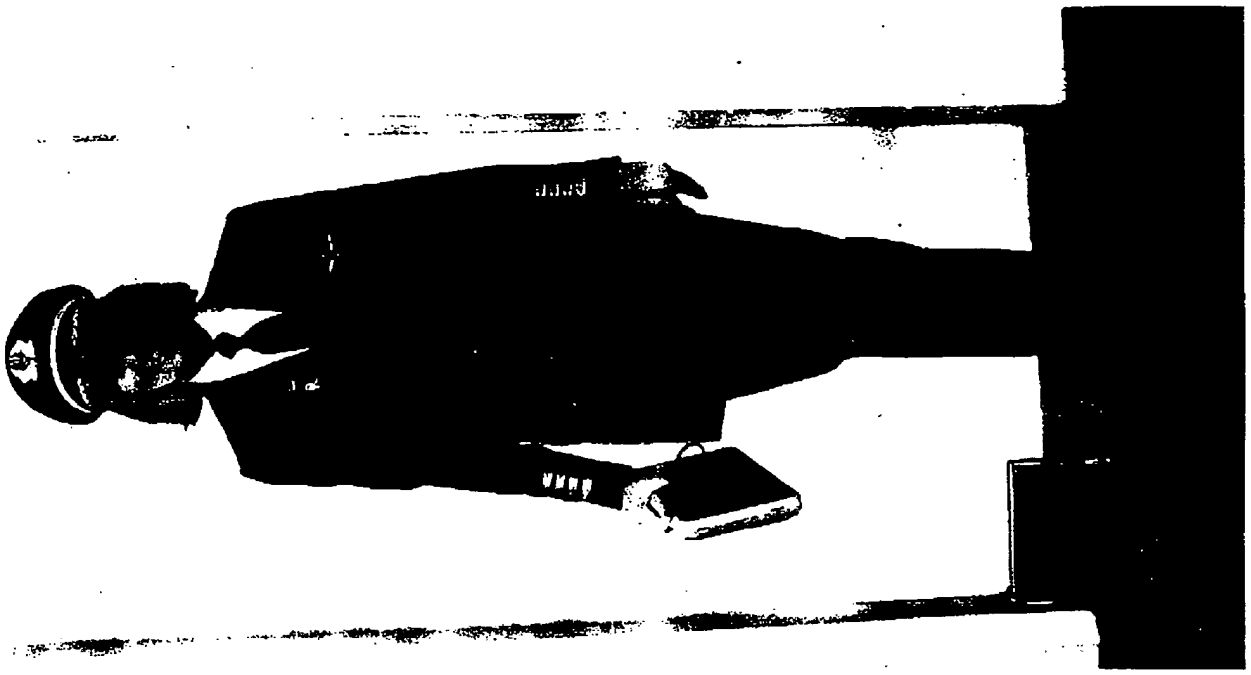

ILLUSTRATION OF ONE EMBODIMENT OF THE
EKG ELECTRONIC KIT BAG

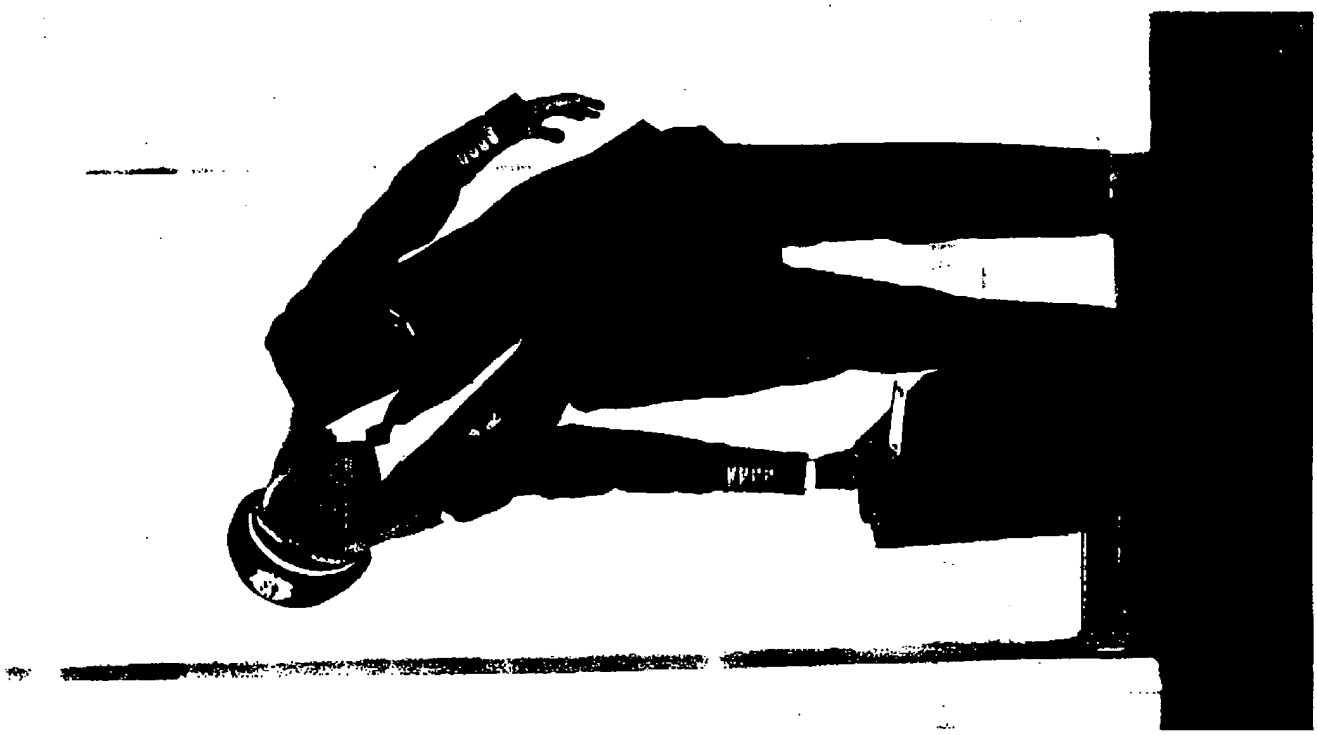

ILLUSTRATION OF ONE EMBODIMENT OF THE OLD STYLE
PILOT KIT BAG

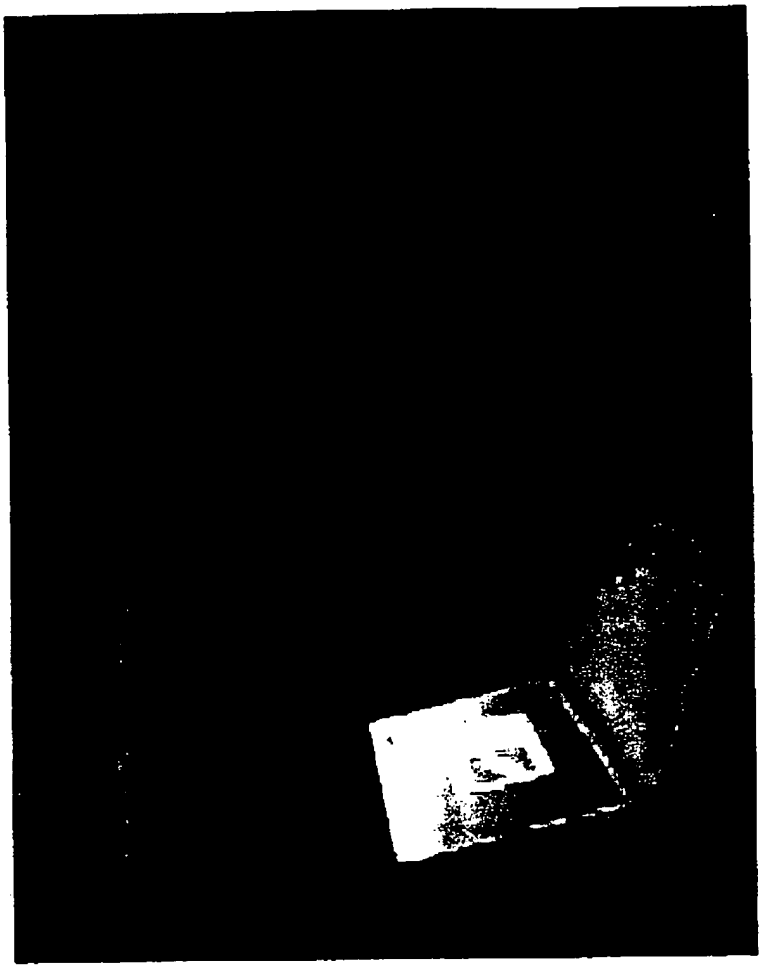

ILLUSTRATION OF PILOT
USING EKB
TO DYNAMICALLY FOLLOW FLIGHT PLAN

ILLUSTRATION OF PILOT
USING OLD STYLE PAPER
TO FOLLOW FLIGHT PLAN

ILLUSTRATION OF ONE EMBODIMENT OF THE EKB SEARCH FUNCTION

ILLUSTRATION OF ONE EMBODIMENT OF THE OLD STYLE PILOT SEARCH FUNCTION

ILLUSTRATION OF PILOT USING EKB
TO STUDY FLIGHT PLAN

ILLUSTRATION OF PILOT
FLYING 777

ILLUSTRATION OF PILOT USING EKB
TO REMOTELY FLY 777

ILLUSTRATION OF PILOT USING EKB
AND PERIPHERALS
TO REMOTELY FLY 777

Pilot Bio: A. Masson 04 04

AmericanAirlines
MD 2030 POBox 997990
Miami Int'l Airport
Miami, FL 33299

BIOGRAPHICAL DATA

NAME Angela Masson (Captain)
Pilot, American Airlines

PERSONAL DATA
Born February 5, 1951 in Los Angeles, California. Unmarried. One daughter. She enjoys air racing, oil painting and the quest for the unified field theory. Her mother, Margaret, resides in Modesto, California, as does her sister, Dr. Lisa Masson, a physician and Chief of Staff at Memorial Hospital. Her father, Dr. Jack Masson, a prototype inventor of the echocardiograph machine, is deceased. Captain Masson and her daughter own a restored Scottish Aviation Bulldog (a British military training aircraft).

EDUCATION
Graduated from Collegio Monte Rosa, Territet, Switzerland 1966
Bachelor's Degree, University of Southern California, School of Fine Arts and Architecture, 1971
Master's Degree, Political Science, University of Southern California, 1975
Master's Degree, Public Administration, University of southern California, 1975
PhD, School of Public Administration (Aerospace Safety and Systems Management), University of Southern California, 1976
Graduated as President of the Graduate Student Body
Post-graduate law studies at Southern Methodist Law School, Dallas, Texas, 1988

ORGANIZATIONS
The Ninety-Nines, Inc. Women Pilots Assn.; ISA+21 (Charter Member), International Society of Women Airline Pilots; APA, Allied Pilots Union; AOPA, Aircraft Owners and Pilots Assn.; EAA, Experimental Aircraft Association; Aerospace Medical Association.

SPECIAL HONORS
Masson's Doctoral Dissertation, "Elements of Organizational Discrimination: The Air Force Response to Women as Military Pilots," was presented during the Congressional Hearings on Admitting Women in to the Military. A reference copy is retained in the United States Congressional Library. Masson received the Air Force Outstanding Service Award and has been honored in the International Forest of Friendship, Atchison, Kansas, for exceptional contributions to aviation. She is listed in *Who's Who in Aviation and Aerospace* and *Who's Who in America.*

EXPERIENCE
Masson began flying lessons at age 15 and first flew solo at Santa Monica Airport, CA (also known as Cloverfield, where Amelia Earhart also first soloed). Shortly after getting her license she began air racing, and in 1972, at age 21, she set the record for the youngest person to fly solo coast-coast in a high-performance aircraft (Hayward, CA to Atlantic City, New Jersey). This record still stands. She has flown in more than 40 cross-country and performance races. In 1971 she was hired by Claire Walter's Flight Academy and as a certified ROTC Flight Instructor, trained Air Force, Navy, Marine, and Army cadets (1971-72). Later she was hired by Express Airways and flew on civilian contract for the Navy, based at LeMoore Naval Air Base, CA

(1973). While completing her University studies she worked as a company pilot for Antelope Valley Land Investment Company (1974), and Lloyd's Bank (1975). In 1976 she was hired as a pilot by American Airlines. On June 30, 1984 Angela Masson became the first woman type-rated on the Boeing 747, the world's largest passenger aircraft. She currently holds more commercial jet type-ratings than any other woman. In 1997 she became the first woman appointed as a Chief Pilot by American Airlines. Since August 2001 she has set eight domestic and international world records for speed over a commercial air route in the Boeing 777. Captain Masson is currently the senior female pilot at American Airlines, the largest airline in the world.

AMERICAN AIRLINES EXPERIENCE
1976 - 1984 Flight Engineer: 707, 727, DC-10, International
1984 - 1986 Co-pilot: 707, 727, 757, 767, DC-10, International
1986 – present Captain DC-9, Airbus 300, MD-11, 777, International

FAA Certificates: Airline Transport Pilot - multi-engine land; Commercial Privileges - airplane single engine land and sea, and glider; Flight Instructor; Advanced Ground Instructor; Flight Engineer - turbojet powered
Aircraft type ratings: 747, 757, 767, 777, DC-9, DC-10, MD-11, A-310

Masson has flown all American Airlines flight divisions: Domestic, Caribbean, Atlantic, Pacific, and South America

MORE INFORMATION
American Airlines Corporate Headquarters, Media Relations (817) 967-1577